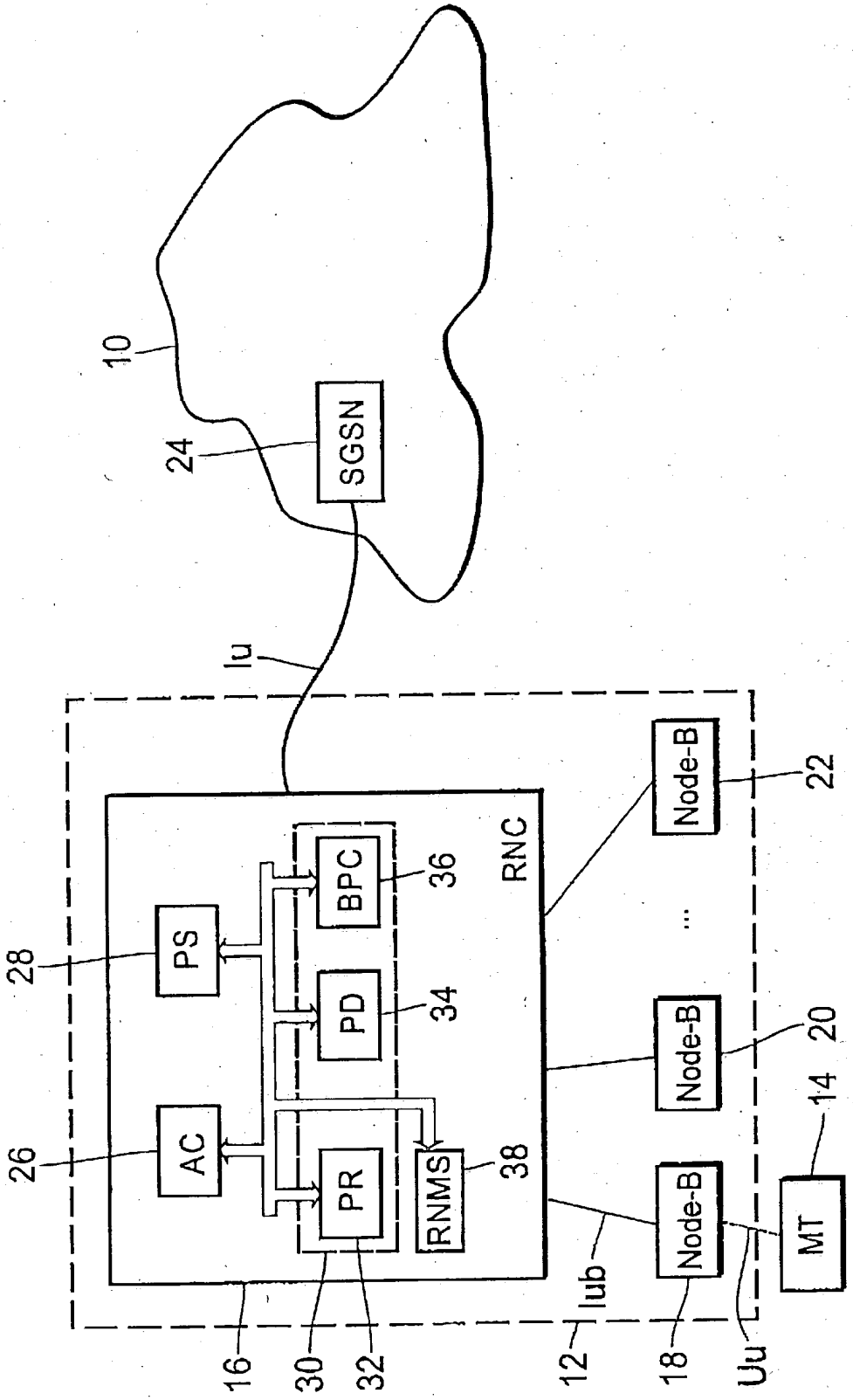
10
SGSN
24
Iu
RNC
BPC
36
PS
28
PD
34
AC
26
PR
RNMS
38
Node-B
22
Node-B
20
Node-B
MT
14
16
30
32
Iub
12
18
Uu

Fig. 1

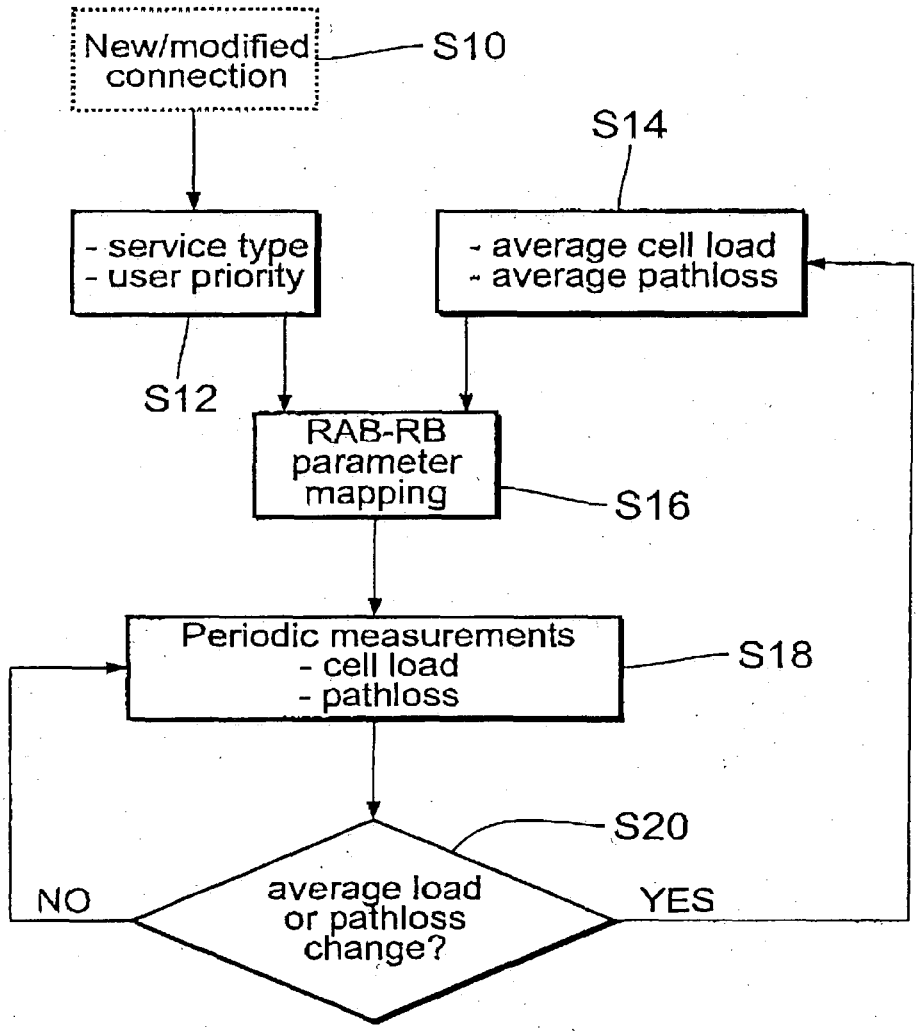
New/modified connection
S10
S14
- service type
- user priority
- average cell load
- average pathloss
S12
RAB-RB parameter mapping
S16
Periodic measurements
- cell load
- pathloss
S18
S20
NO
average load or pathloss change?
YES

Fig. 2

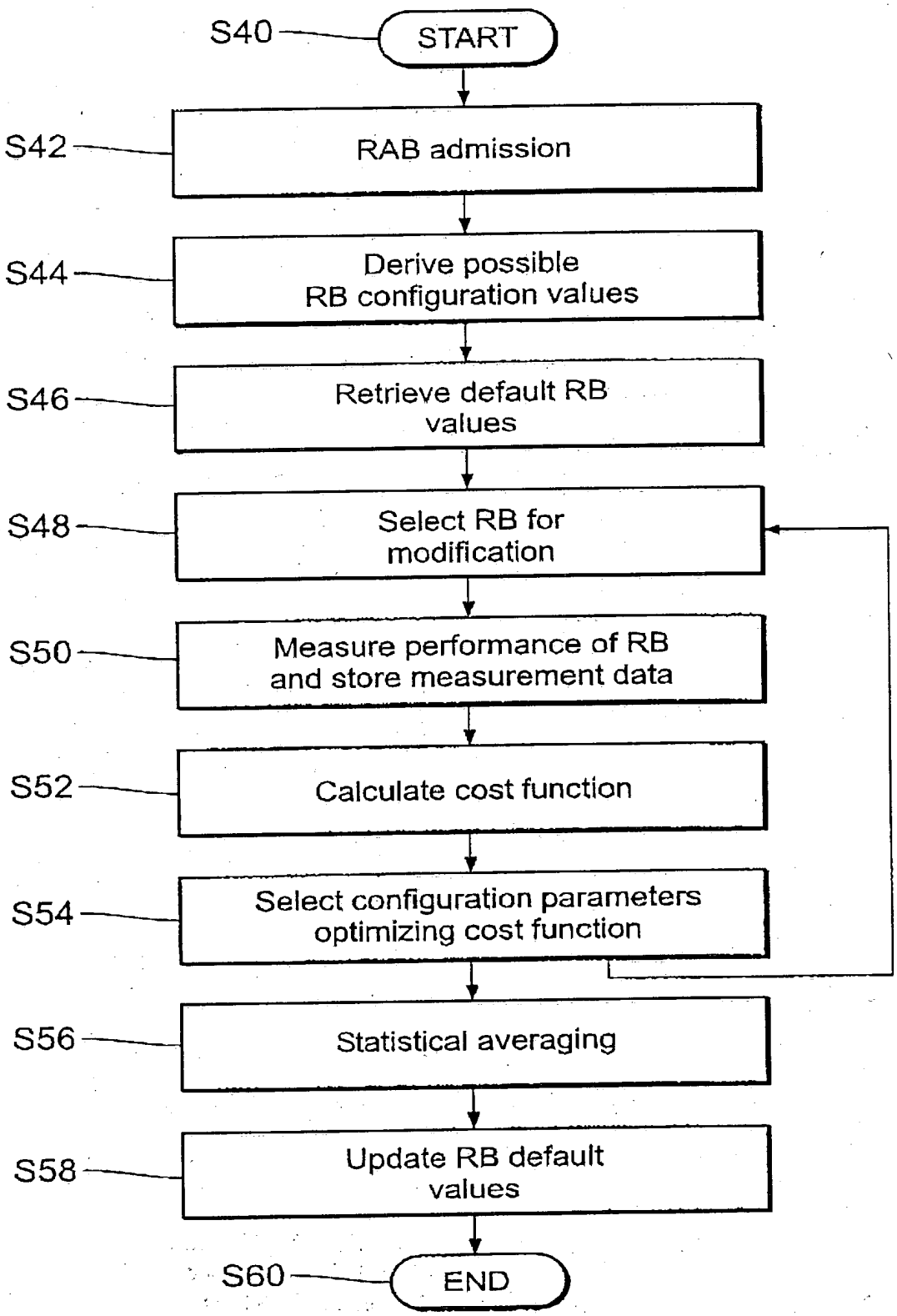
S40
START
S42
RAB admission
S44
Derive possible RB configuration values
S46
Retrieve default RB values
S48
Select RB for modification
S50
Measure performance of RB and store measurement data
S52
Calculate cost function
S54
Select configuration parameters optimizing cost function
S56
Statistical averaging
S58
Update RB default values
S60
END

Fig. 3

QoS indication								
User priority	Gold			Silver		Bronze		
Pathloss	Low	High		Low	High	Low	High	
Low load	High	High		High	Medium	Medium	Low	
Medium load	High	High		Medium	Medium	Low	Low	
High load	High	Medium		Medium	Low	Low	Low	

Fig. 4

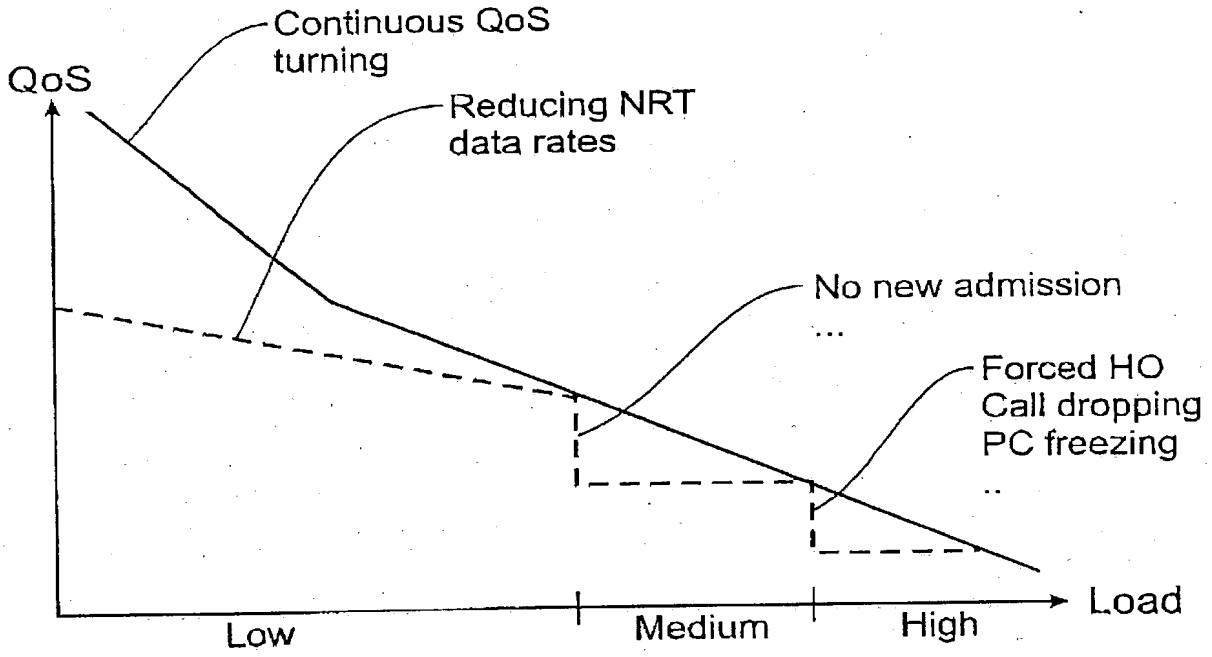
QoS
Continuous QoS turning
Reducing NRT data rates
No new admission
...
Forced HO
Call dropping
PC freezing
..
Load
Low
Medium
High

Fig. 5

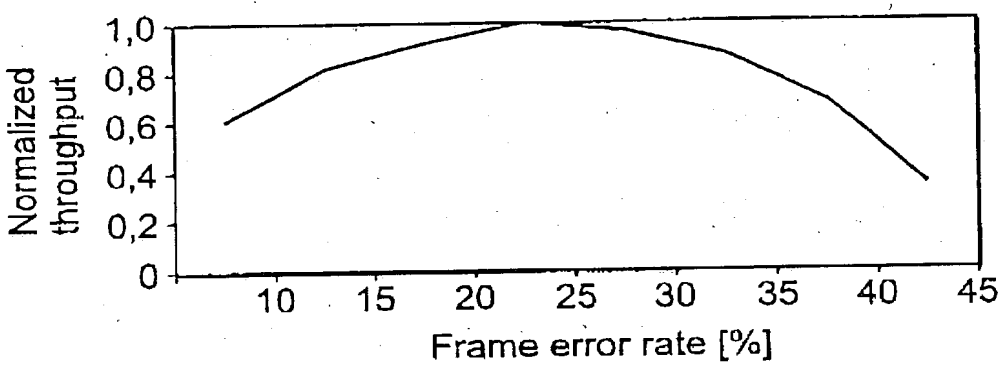
Normalized throughput
1,0
0,8
0,6
0,4
0,2
0
10
15
20
25
30
35
40
45
Frame error rate [%]

Fig. 6

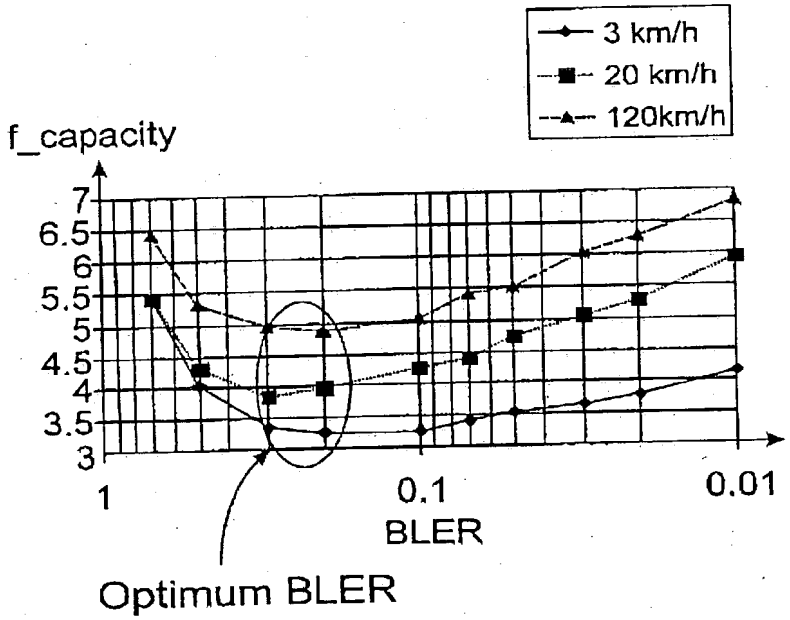
3 km/h
20 km/h
120km/h
f_capacity
7
6.5
6
5.5
5
4.5
4
3.5
3
1
0.1
0.01
BLER
Optimum BLER

Fig. 7